

WATER-BASED DRILLING FLUIDS USING LATEX ADDITIVES

Abstract of the Disclosure

A water-based drilling fluid having a polymer latex capable of providing a deformable latex film on at least a portion of a subterranean formation has been discovered to provide reduced drilling fluid pressure invasion when used to drill in shale formations for hydrocarbon recovery operations. A precipitating agent such as a silicate or an aluminum complex (e.g. sodium aluminate) is preferably used in conjunction with the polymer. Typically, the water present contains a salt to form a brine, often to saturation, although the invention may be practiced with fresh water. If a salt is employed, it is often helpful to additionally employ a surfactant, such as a betaine, for example.

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